

REMARKS

In this response, claim 38 has been amended to correct certain informalities, claim 57 has been rewritten in independent form, no claims have been newly cancelled, and new claim 60 has been added. Support for the new claim may be found throughout the specification. Thus, no new matter is introduced. Reconsideration of pending claims 38, 41-54 and 56-60 is respectfully requested.

Examiner Interview

Applicants thank the Examiner for courtesies extended during an interview with Ayanendu Paul, a representative of the undersigned, during an interview on March 21, 2010. During the interview, the participants discussed the independent claims in view of the cited references. No decision on patentability was reached during the interview.

Rejections under 35 U.S.C. § 103

Claims 38, 41-46, 48-54 and 56-58 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Palmer (US 4,478,268) in view of Iseli et al. (US 4,519,474).

Applicant has amended claim 38 to correct certain informalities and to improve the readability of the claim. Applicant respectfully submits that no substantive features have been added to claim 38. Amended claim 38 is directed towards a roll up door that includes, among other features,

an elastically deformable stabilizing element coupled to at least one lower edge of the flexible web-like closing element,

... wherein the stabilizing element is configured to:

 exert a first restoring force to counteract a contact deformation in a direction opposite to a closing direction when each of said at least one closing element is in said closed position, and

 exert a second restoring force to counteract a contact deformation in a direction transverse to each of said at least one closing element when each of said at least one closing element is in said closed position,

wherein said first restoring force is less than said second restoring force...

Thus, the recited stabilizing element, coupled to a lower edge of the closing element, exerts a first restoring force that is less than a second restoring force.

Palmer proposes a damage-minimizing door that comprises a pair of spaced apart guide means and a flexible curtain 10 having a pair of side edges movably engageable with each of the guide means. The curtain 10 may be pulled laterally from the guide means when a predetermined impact force is applied to the flexible curtain. Palmer also proposes means for moving the curtain between a first door in open position and a second door in closed position.

As described in column 5, lines 15 to 61 of Palmer, if a driver ever fails to open the door or if the door fails to open before it is hit by a vehicle at an impact, the vertical edges of the curtain 10 will be pulled out of their guide channels 14 and 15, and will be retreated in front of the vehicle. In addition, the base bar 50 or tube 55 may release from the curtain. Thus, Palmer proposes the door to bow under the pressure of a colliding vehicle, and the vertical edges of the door to escape from their respective guide means (e.g., as illustrated in Fig. 2).

The Examiner appears to equate Palmer's curtain 10 with the recited closing element. Furthermore, the Examiner cites Figs. 12 and 13 to allege that Palmer discloses the stabilizing element. Applicant respectfully submits that, for the following reasons, the components illustrated in Palmer's Figs. 12 and 13 can not be equated with the features associated with the recited stabilizing element.

Palmer's curtain 10 illustrated in Fig. 13 does not, by itself, exert any force in any direction. At a minimum, the curtain 10 does not exert a restoring force to counteract a contact deformation in a direction opposite to a closing direction. Neither does the curtain 10 exert a restoring force to counteract a contact deformation in a direction transverse to a closing element.

Palmer's Figs. 12 and 13 also illustrate "a rubber tube 55 with an interior coiled spring 56"¹, which is "connected by a grooved channel 57 to the lower edge of curtain 10."² The structure illustrated in Palmer's Figs. 12 and 13 (hereinafter also referred to

¹ Palmer, col. 4, lines 48-51.

² *Id.*

as “Palmer’s structure”) – which includes the rubber tube 55, the coiled spring 56, and/or the channel 57 – ensures that, when a predetermined impact force is applied to the flexible curtain, the curtain 10 is pulled laterally from a guided means. For example, Palmer’s structure ensures pulling of the curtain from the guided means in case a vehicle impacts with the door.

Firstly, as best understood by the applicant, Palmer’s structure does not exert a *restoring force to counteract a contact deformation in a direction opposite to a closing direction*, as recited in claim 38. This is because, Palmer’s structure is not associated with any movement or force in the closing direction (or in a direction opposite to the closing direction) of the door.

Secondly, Palmer’s structure arguably ensures that the curtain 10 is pulled out of the guided means when hit by a vehicle. Thus, arguably, in a case where the curtain 10 is equated to the recited closing element, Palmer’s structure ensures that the curtain 10 is pulled out of the guided means towards a direction that is almost transverse to the direction of the curtain 10, as illustrated in Palmer’s Fig. 2. That is, instead of exerting a restoring force, Palmer’s structure arguably facilitates a contact deformation (e.g., deformation of the curtain 10) in a direction transverse to the curtain 10. In contrast, claim 38 recites exerting a restoring force to counteract such a contact deformation.

Thirdly, even if, *for arguments sake*, it is somehow assumed that Palmer’s structure does somehow apply a first restoring force and a second restoring force as recited in claim 38 (although as previously discussed, Palmer’s structure does not at all apply any such restoring forces) - there is no disclosure, suggestion, or reason in Palmer for the first restoring force to be less than the second restoring force, as recited in claim 38. As Palmer does not disclose such a first restoring force and a second restoring force, Palmer also does not disclose any comparison between the two restoring forces.

Fourthly, *for arguments sake*, even under the assumption that Palmer’s structure applies such a second restoring force - making the second restoring force higher (e.g., higher than the first restoring force) will result in making it difficult for a pullout of the

curtain 10 from the guided means if the vehicle hits the curtain. Accordingly, even if Palmer is assumed to apply such a second restoring force, making the second restoring force higher will be contrary to the teachings of Palmer. In contrast, claim 38, clearly indicates that the second restoring force is higher than the first restoring force. Making the second restoring force higher than the first restoring force in Palmer, as suggested by the Examiner, will change the way the Palmer reference operates. For example, such a modification in Palmer will make it difficult, and may even prevent a pullout of the curtain 10 from the guided means if the vehicle hits the curtain, which is contrary to the teachings of Palmer. And if “the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious.”³

For at least these reasons, Applicant respectfully submits that Palmer does not disclose or suggest, either in Figs. 12 and 13 or elsewhere, a stabilizing element, as recited in claim 38. The Examiner has also not pointed out where Iseli discloses such features associated with the stabilizing element.

For at least these reasons, Applicant respectfully submits that Palmer and Iseli, either alone or in combination, do not disclose or suggest the features of claim 38. Accordingly, claim 38 is in condition for allowance, along with associated dependent claims 41-46, 48-54, 56 and 58.

Claim 45, which depends from claim 38, is allowable for at least the reasons claim 38 is allowable. Additionally, claim 45 recites in part:

a safety device, accommodated in the channel of the elastically deformable stabilizing element, configured to switch off and/or trigger a change in direction of a drive device coupled to the closing element in response to deformation of the elastically deformable stabilizing element.

The Examiner has not specifically pointed out where Palmer or Iseli discloses or even suggests a safety device that is configured to perform one or more operations in

³ In re Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). Also cited in MPEP 2143.01, section V.

response to deformation of an elastically deformable stabilizing element, as recited in claim 45. As best understood by Applicant, none of the cited references disclose or even suggest any such features.

Independent claim 57

Applicant has rewritten claim 57 in independent form, including all features of the base claim 38 and intervening claim 41. No new substantive features have been added in claim 57.

Claim 57 recites features associated with the stabilizing element, that are similar to those discussed with respect to claim 38. As previously discussed with respect to claim 38, Palmer and Iseli, either alone or in combination, do not disclose or suggest such features of claim 57.

Furthermore, claim 57 recites:

wherein the stabilizing element has two or more parallel leaf springs embedded in the stabilizing element, wherein the two or more leaf springs are spatially separated from each other, the two or more leaf springs having primary surfaces oriented perpendicularly to the closing direction; the roll up door further comprising a channel passing between two of the two or more leaf springs...

Palmer, in Figs. 12 and 13, illustrates a “rubber tube 55 with an interior coiled spring 56.”⁴ Furthermore, the Examiner alleges that Iseli illustrates, in Figs. 3 and 4, a door edge sensor that has a reinforcing member 9. The Examiner appears to equate Palmer’s interior coiled spring 56 and Iseli’s reinforcing member 9 with the recited leaf springs. Furthermore, the Examiner asserts that the relative location of the leaf springs is an obvious design choice determined by particular application, size constraints, etc. Applicant respectfully disagrees with this assertion by the Examiner.

Claim 57 recites a specific configuration of the leaf springs. For example, in claim 57, two parallel leaf springs are spatially separated from each other, and have primary surfaces oriented perpendicularly to the closing direction. Such specific features of the leaf springs are not a mere random design choice. Rather, such

⁴ *Id.*

features of the leaf springs are well thought out, are a part of Applicant's invention, and have several advantages. For example, by using such specific features of the leaf spring, it is "possible to achieve a particularly high restoring force in a direction transverse to the closing direction while simultaneously ensuring a sufficiently low restoring force in a direction opposite to the closing direction."⁵

Applicant would like to note that passing the channel in between two of the two or more leaf springs, as recited in claim 57, also has several advantages. For example, such passage of the channel creates a distance among the two or more leaf springs, which further facilitates in the above discussed advantages of the leaf springs, as disclosed in the specification (page 9, lines 4-6).

Palmer, in Figs. 12 and 13, illustrate only a single coiled spring 56. However, Palmer does not disclose two parallel coiled springs, as recited in claim 57. Even if, *for arguments sake*, the coiled spring 56 of Palmer is assumed to be broken or divided into two springs (although there is no reason to do so), such two coiled springs would not be parallel to each other, as recited in claim 57. Furthermore, Palmer's such two coiled springs would not have a channel passing in between, as recited in claim 57. Accordingly, Palmer's such two coiled springs would not have a distance in between, thereby failing to achieve the advantages of creating a distance in between the two springs (see discussion in the previous paragraph) by passing the channel in between the two springs, as recited in claim 57.

Iseli similarly discloses a single reinforcing member 9, and does not disclose any of the recited features associated with two or more leaf springs.

As discussed, the specific configuration and position of the recited leaf springs is a well thought through design, and not just a mere random design, and has several advantages. Furthermore, as discussed, none of the cited references discloses or even suggests the specific configuration and position of the recited leaf springs.

For at least these reasons, Applicant respectfully submits that claim 57 is in condition for allowance.

⁵ Applicant's specification, lines 7-11, page 9.

Claims 50-53 and 59 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Palmer in view of Iseli, and further in view of Clark (US 3,292,685). Claims 50-53 and 59 depend from independent claim 38. Clark allegedly discloses providing bristle sealing/aligning means in a track for a roller closure. Clark, however, does not cure the deficiencies of Palmer or Iseli, as discussed with respect to claim 38. Accordingly, claims 50-53 and 59 are allowable for at least the reasons claims 38 is allowable.

New Claim

New independent claim 60 has been added, support for which may be found throughout the specification. Claim 60 includes features that are at least in part similar to those previously discussed with respect to independent claims 38 and 57. Accordingly, claim 60 is allowable for at least the reasons claims 38 and 57 are allowable.

Furthermore, claim 60 recites that *the first and second leaf springs are configured such that said first restoring force is less than said second restoring force*. Support for such features may be found, for example, in Applicant's specification, lines 7-11, page 9; and lines 2-10, page 16. Palmer and Iseli, either alone or in combination, do not disclose or suggest two leaf springs, and also do not disclose or suggest configuring two leaf springs as recited in claim 60.

Conclusion

For at least the above stated reasons, a Notice of Allowance is respectfully requested. If the Examiner has any questions concerning the present paper, the Examiner is kindly requested to contact the undersigned at (503) 796-2997. If any fees are due in connection with filing this paper, the Commissioner is authorized to charge Deposit Account No. 500393.

Respectfully submitted,
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